

DENALI FULL WEST RIB EXPEDITION

20,310 ft / 6,190 m

Alaska Grade IV

Experience level: Advanced technical

13,000' elevation gain

38 miles, 22 days

Group limit: 4 expedition members, 2 guides



Denali is America's tallest mountain and is unsurpassed in challenge and scenic beauty. Located 130 miles north of the port city of Anchorage, Alaska, it rises out of a sea of glaciers and other peaks that comprise the Alaska Range, in the heart of Denali National Park and Preserve. From our start at base camp, we climb 13,000 vertical feet to the top—the greatest elevation gain of any mountain in the world. The West Rib ascends a direct line up the south face of the mountain to the summit ridge. The route provides consistent, challenging technical climbing and has exposed camps with phenomenal views. This route is for people who make alpine climbing and mountaineering a regular part of their lives and is a noteworthy goal for any technical alpinist climber.

COST

Deposit: \$2,000

Balance due: 120 days prior to the starting date

Includes: AMS professional mountain guides, National Park Service mountaineering special use and entrance fees, base camp fee, round trip glacier flight, field food and fuel, group camping and climbing equipment (tents ropes, snow/ice protection, kitchens), emergency supplies (maps/ GPS, radios, satellite phone; repair, trauma, and drug kits), pre-rigged sleds, 24/7 support during the expedition from AMS headquarters, knowledgeable advice for training, equipment and travel, camp area at AMS in Talkeetna, regular updates on social media during the expedition, and a copy of the book: *Denali's West Buttress: A Climber's Guide* by Colby Coombs.

You are responsible for: Arriving in excellent physical and mental fitness, transportation to and from Talkeetna, lodging (AMS campground is free, tents not provided), travelers cancellation insurance (highly recommended), personal equipment and clothing, rental items from AMS, and guide gratuities.

HISTORY

The West Rib was first climbed June 19, 1959, by the Jackson Hole climbers Sinclair, Breitenbach, Corbet,

and Buckingham. It was a major milestone in North American mountaineering and their ascent was written up in the 1960 American Alpine Club Journal with the first ascent climbers featured on the cover.

GRADE/DIFFICULTY

Given a Grade IV, the West Rib is two degrees harder than the West Buttress route. High altitude, extreme weather, and active glaciation combine to make Denali one of the most difficult and severe mountains in the world to climb. The approach to the base of the route up the northeast fork presents many hazards and will only be done after scouting to determine that risks can be minimized and managed. If the northeast fork is in poor condition, then the expedition will reroute to the West Buttress and rejoin the West Rib at 16,300 feet. Summit day is a 3,000–3,700-foot day depending on where High Camp is made. It is a 12–16 hour day of exposed climbing that requires immense stamina. The terrain on the West Rib is steep and exposed and requires expert cramponing skills while roped and efficiency clipping through protection. It is a true climber's route on Denali.

WILDERNESS

Preserving the wilderness character of Denali National Park and Denali's West Rib route is a long-standing

priority at AMS. We have climbed on all continents and Denali remains one of the world's cleanest big mountains, and we strive to keep it that way. The Denali West Rib Expedition truly climbs in deep wilderness where few people visit, so it remains a pristine landscape. Our expeditions practice Leave No Trace camping and climbing techniques and follow current and progressive human waste and trash removal management techniques. To enhance the wilderness experience and take advantage of better climbing conditions, we travel in the cooler temperatures of the night and early mornings, which allows us to climb with less people and avoid any possible congestion of narrow areas on the route. We avoid broadcasting of music to be considerate of other climbers and are strategic in our choice of campsite locations. Our expedition guides work closely with NPS mountaineering rangers on the mountain to identify current mountain hazards in addition to documenting and reporting unethical camping or climbing teams. We believe that our national park lands are treasures of North America and we practice clean visitation practices and wilderness preservation education during all our climbs and programs.

THE CLIMB

The West Rib is an excellent climb for experienced technical climbers who want an advanced level expedition-style mountaineering experience. The climb starts at Kahiltna Base, at 7,200 feet, and travels up the Kahiltna Glacier to the base of Ski Hill and the intersection of the Northeast Fork at 7,800 feet. Our next camp is "safe" camp at 9,500 feet in the Northeast Fork. After negotiating the glacier's icefall, we establish camp in the bergshroud at the base of the Chicken Couloir, 11,000 feet. Guides establish temporary fixed lines, which we climb to the couloir and cache at 12,500 feet. The following day, we climb to 12,900 feet and establish Apex Camp. Climbing along the ridge, we establish the next camp in a bergshroud at 12,900 feet. Continuing along the ridge, the next good camp location is at 15,800 feet followed by our high camp at 16,300 feet. From here a summit attempt can be made, or sometimes a higher camp at 17,200 feet is established. When the team is well rested and the route is in suitable climbing condition, we leave for the summit.

Picking our way through the rock bands high on the south face of Denali is an awesome mountaineering experience. The West Rib proper ends at 19,300 feet when we exit onto a large plateau called the Football Field. A final climb along the summit ridge leads to the top (20,310 ft). Summit day can take up to 16 hours by the time we return to our high camp. From high camp, we descend onto the West Buttress route at basin camp at 14,200 feet and return to Kahiltna Base via the West Buttress route.

PRIOR EXPERIENCE

"This method of approaching McKinley directly from the south is so continually steep and difficult, and so exposed to the full force of the southwesterly storms that none but the most uniformly experienced and powerful team of climbers should even think of attempting it." —Bradford Washburn, *Mountain World*

Denali's West Rib is an outstanding mountaineering challenge and only appropriate for climbers with significant climbing experience and an attitude to enjoy the rigors of expedition life. As an advanced and technical high altitude climb, the West Rib requires a dedicated training regime. For the best chance of success, applicants should be in excellent physical condition and have climbed steep mountaineering routes that require roped glacier travel, winter snow camping, and the extensive use of an ice axe and crampons. Prior experience on Denali's West Buttress and at altitudes above 15,000 feet, with technical winter climbing and with winter travel for extended periods of time, is necessary. Dealing with the cold on Denali is a day-to-day challenge. Tying knots, coiling ropes, and belaying with gloves and mittens should be familiar tasks. The ability to arrest a fall on a steep icy snow slope while wearing a pack is paramount to your safety and the safety of your team. You will have to crampon up to 40 degrees with a 60–75 pound pack. Most of the route we double carry, but the move to high camp is often a single load. Throughout, the route requires you to clip through running belays, employ fifth class belays, and in a few sections to climb temporary fixed lines efficiently.

WEATHER

It is often said that one of the greatest challenges of Denali is the weather. While most of the world's highest mountains are near the equator, Denali is closer to the Arctic Circle. Its location in the southern Alaskan mainland is 200 miles south of the Arctic Circle at 63° latitude. This is 30° further north than Everest, and the same latitude as northern Hudson Bay and central Scandinavia. The mountain's summit climate makes Denali one of the most severe of any spots on earth. The weather dictates our every move on the expedition; it is fickle and unpredictable. It will force us to be flexible, patient, and sometimes spontaneous. The weather is the one thing we cannot change; but we do have control over our attitude, and will maintain a state of positive readiness throughout our climb.

UNFLYABLE WEATHER

Flying small aircraft over mountainous terrain requires even better weather than needed for climbing that same terrain. Pilots need calm winds and excellent visibility. Be aware that Alaska has unpredictable weather, which can prevent flying into the mountains on schedule. Bush planes can only fly if the weather is suitable, and we like it that way too. Sometimes the weather may be unflyable for a day or two. We are well prepared for delays; our field rations stay fresh stored in our large commercial fridge and chest freezers; and we will base out of AMS's Talkeetna facilities, which consist of the office, staging area, Mountain Shop, and indoor climbing wall. These facilities allow expedition members to view slideshows and additional educational media and practice fixed line ascension and other climbing techniques. We stay at the ready so that we can be at the airport quickly when the weather clears for flying. We will do our best to ensure that your expedition ends on schedule. However, we recommend allowing 3 days on the return end of your travel plans (or purchasing flexible airline tickets) if weather prohibits flying off the glacier on time.

ACCLIMATIZATION

Our expedition-style climbing strategy reflects a concern for giving everyone the best chance to acclimate to a lower oxygen environment. Double carries, rest days, and 4 to 5 nights sleeping at 14,800 feet before moving higher allow most people time for their bodies to adjust. Expeditions carry a pulse oximeter to measure blood oxygen saturation levels and heart rate, and

prescription medications to treat life-threatening conditions in emergencies. Advanced signs or symptoms of pulmonary and/or cerebral edema are life-threatening conditions that require immediate descent. Each year AMS is briefed by our medical director Dr. Peter Hackett (who pioneered high altitude medical research on Denali) on advancements in the research, prevention, and treatment of altitude-related illnesses. Our training supervisor, Lance Taysom, chief life-flight RN and Mountaineering VIP for Denali National Park also keeps us trained and up to date. Together they wrote our medical protocols and standing orders, which allow our guides and instructors to evaluate and treat within the scope of their Wilderness First Responder training. Communication with your guides is paramount to your own and your teammates' health and well-being on the mountain. For those suffering from acute mountain sickness, we use Diamox (Acetazolamide) in conjunction with rest and hydration. Anyone showing signs of severe acute mountain sickness will not climb to higher elevations until those signs and symptoms go away. Note: Please read the *Expedition Cold Injury and Altitude Illness Prevention* document for more information.

LEADERSHIP & TEAMWORK

Successful expeditions are properly equipped and have the necessary skills, but most importantly they learn to become a strong team. Leadership reflects the art of effective team building. Starting in Talkeetna and throughout the climb, your guides will review with you the skills necessary for un-supported expedition life. From Day 1, your expedition will strive towards signs of strength: tight camps, efficient travel techniques, and a positive attitude. We expect you to stay organized, participate fully, have fun, and support the goal of maintaining a strong and safe expedition. Of primary importance is taking responsibility for monitoring yourself: you know best how you feel, how you sleep, how you recover each day. As a team, we can help if someone is having a bad day, but ultimately every member must be a regular contributor, and a safety minded and efficient climber who helps with camp chores, to be successful. Not participating, climbing unsafely, or failing to meet the day-to-day demands will lead to your departure from the expedition. We expect you to maintain good expedition behavior: taking initiative and being supportive, solution-

oriented, hard working, and patient. In return you will be rewarded with the climb of a lifetime.

REFERENCES

Alaska Mountaineering School is a small and professionally run operation committed to high standards at all levels. The Alaska Range within Denali National Park and Preserve is where we do the majority of our climbing and we consider it our backyard. Our history of guiding in the Alaska Range and on Denali reaches back to 1983, and everything we do today is built from hands-on experience. We urge you to carefully research climbing with us. Search for Alaska Mountaineering School and our directors, Caitlin Palmer and Colby Coombs, on the Internet. Talk to climbing rangers at the Talkeetna Ranger Station (907-733-2231). Call your local climbing store or climbing wall and ask if they have heard of us. AMS is small, but our word-of-mouth reputation extends far. Our guides and instructors represent a tight group of educators and mountain guides with varied professional affiliations. A note on certification: other than our own Mountain Guides Course, there is no available certification in the United States or Europe that takes into account the expedition skills necessary to guide in the varied terrain and scope of the Alaska Range. AMS has developed a training program for our guides that include a time-tested apprenticeship program, technical training, and evaluation system, which results in mountain guides with a depth of Alaska Range knowledge found only at AMS.

GUIDES

AMS guides are professional climbers with extensive climbing resumes who love the mountains and have a gift for guiding, teaching—and leadership. Lead guides have a wealth of experience from multiple years of working on Denali as well as the surrounding technical peaks. West Rib guides are senior AMS staff who have climbed the route and know it well. All AMS staff are trained in mountain rescue, avalanche safety, extreme mountain weather, Leave No Trace, and wilderness medicine and ethics. They know how to set the pace for a successful expedition. Their knowledge of the area's natural history and climbing history and stories from their own climbing experiences add immensely to the climb. Their strength, stamina, and leadership are paramount for a Denali climb.

TRAINING

All applicants must adopt a goal of being in excellent physical condition at the start of the expedition. Please don't show up sick, injured, or unprepared. On any mountaineering expedition, there are factors that are out of anyone's control, namely weather and individual acclimatization rates. By joining a professionally run expedition, you leave expedition logistics, food, equipment, and leadership to us. You are responsible for and have control over your mental preparedness, physical fitness, and climbing ability. It is imperative that everyone joining an AMS expedition be physically fit at the start. The better condition you are in, the more you will enjoy the climb, the safer it will be for you, and the better chance for summiting. The more climbing experience you have prior to the climb, the more fun you will have on Denali. The amount of time needed for training depends on your base level of fitness. Athletes need only to adjust their training habits to include Denali specific routines. Others may have to plan a year or more of advanced, serious training to ensure success. Safe climbers make being in shape a priority. Those who are able to should get out and climb as much as possible. Those with less time to climb can lift weights, run, bike, swim, practice martial arts, and red-line the stair master.

It is important to develop physical and mental stamina and technical skills over brute strength. Although upper body and core strength is necessary for lifting a pack, shoveling snow, swinging ice tools, and building camp, most of the effort on the expedition is aerobic because of long, hard days breaking trail and traveling. Maintain a pulse rate 80% of maximum for a half-hour during the workout. Vary your routine to prevent overuse injuries; push yourself without injuring yourself. Confidence with crampons and ice tools is necessary for the dramatic exposure and steepness of the Denali West Rib route. Train on irregular terrain in poor conditions. Scramble up peaks, climb snow and vertical ice, embark on a rigorous multiday winter backpacking trip, ski uphill as well as downhill, go snowshoeing. Pushing yourself in uncomfortable environments while staying focused and alert is good training; you cannot successfully prepare for this expedition in your office or solely by training indoors. Please read our *Fitness & Training* and *Training Resources* guidelines for expeditions.

EQUIPMENT

Please carefully read the *Expedition Mountaineering Equipment List* before embarking on your expedition. Denali is not the mountain to “just get by” using mediocre equipment. Your gear will be put to the ultimate test. A carefully planned layering system is comfortable, efficient, lightweight, and holds up. “Quality” does not necessarily mean expensive, and a trip to the Army surplus store or second-hand backcountry outfitter often turns up many of the basics. The equipment list gives recommendations for particular items. You can also get your equipment questions answered by a knowledgeable staff member at AMS or a senior sales person in a local climbing store; they are often most informed about the pros and cons of a particular brand or style. The equipment section of the book *Denali’s West Buttress: A Climber’s Guide* by Colby Coombs also provides tips and suggestions. Your guides will ensure you are properly outfitted, checking equipment with you on your first day at AMS. They will issue any rental gear you need and you will have the opportunity to purchase equipment at the AMS Mountain Shop, which is able to provide nearly all of your equipment needs and offers you a 10% discount. Note: If you arrive in Talkeetna early, please wait to check gear with us on the first day of the expedition, not earlier, as we are busy preparing for the expedition a full three days before.

FOOD

AMS provides hearty, nutritious, and balanced meals on its expeditions. An excel spreadsheet rations program and faithful recipes balance calories, carbohydrates, fats, proteins, and weight to create tasty and creative meals that build strength and maintain health. Demands on your body will be high, and despite a 4,000 to 5,000 calorie per day diet some people still lose weight over the course of the expedition. We avoid freeze-dried meals-in-a-bag as their portions are typically inadequate and lack palatability. Our rations come from specialty companies, organic wholesalers from Washington, and supermarkets in Anchorage. All of our meals can easily accommodate vegetarians and other dietary needs; please contact us if you need more specifics. AMS provides all of the food for this expedition; but to ensure satisfaction we encourage

you to bring 5 pounds (2.25 kilos) of your favorite snacks and cold drink additives to supplement what we provide for you. Make sure to contact us if you have any dietary restrictions or allergies. See our *Expedition Food* sheet for more details.

TALKEETNA FACILITIES

AMS is the oldest and only outdoor school and guiding company based in Talkeetna and we live here, year-round. Our headquarters—consisting of our office, equipment rooms, food rooms, staging areas, climbing wall, and staff housing—are located at the end of a narrow dirt dead-end street, adjacent to the local historic airstrip. We have an excellent location and facilities to outfit expeditions and serve our expedition members. A large staging area allows us to check gear and practice fixed line ascension. Our secondary Talkeetna facility, near the Talkeetna State Airport on F Street, is home to our retail store, the AMS Mountain Shop, staff housing, and transitional theater/classroom space. In the event of unflyable weather, our facilities are a comfortable place to teach classes, show slideshows and videos, and be productive during the “Talkeetna hang.”

TRAVEL & LOGISTICS

After flying into Anchorage, Alaska, please wait to check out of the airport, and then fly to Talkeetna, Alaska, or train to Talkeetna. For more details, including transportation options, please read the *Expedition Travel and Logistics* document. Plan to arrive in Talkeetna by 11:00 a.m. on the first day of your expedition. This gives you time to get settled and be ready at 1:00 p.m. on the starting day. If you arrive earlier you can relax and walk around town, check out the river, the ranger station, and the climbers exhibit in Talkeetna’s museum. Expect to leave Talkeetna the morning following the last day of your expedition.

ARRIVAL

Please arrive at AMS at 1:00 p.m. the first day of your expedition. Your guides will provide an expedition and safety orientation. Next, you will pack your mountain lunches and perform a thorough gear check with time to rent or purchase equipment. You’ll be free at 6:00 p.m. to enjoy the evening in Talkeetna.

On your second expedition day, the team meets at 8:00 a.m. at our Talkeetna headquarters. This is a busy day that ends at base camp on the Kahiltna glacier, so please be on time and take care of all personal business beforehand. Your team will walk from AMS four blocks to the National Park Service (NPS) Walter Harper Talkeetna Ranger Station for the required check-in and mountaineering briefing. You may wish to start your day with a hearty early breakfast at one of the local restaurants. We'll have hot drinks and freshly baked goods available all morning. After our NPS Mountaineering briefing we return to AMS headquarters to review technical skills for the climb, including roped glacier travel, sled rigging, and fixed line ascension; ensure packs are rigged for glacier travel; and double-check that you have all the necessary hardware for your glacier set-up. At midday, a tasty lunch is provided for your team at AMS. After lunch, you'll dress for the mountains, finish packing, and fly onto the glacier in a ski-equipped fixed-wing Cessna 185 or DeHaviland Beaver or Otter. This 40-minute flight into Denali National Park and Preserve is the fastest way to access the glaciated peaks of the Alaska Range and is a spectacular and memorable highlight of the trip. Once you arrive at the Kahiltna Glacier Base Camp, the rest of the afternoon consists of selecting a campsite, setting up personal and group kitchen tents, receiving guides' advice on how to sleep warm, and settling down to a good, hot dinner.

RETURN TO TALKEETNA

We strongly suggest you plan to spend the night in Talkeetna once you have returned from your expedition. Transportation schedules may require that you catch your shuttle to Anchorage the following day. AMS staff will provide a current list of options for transportation and lodging upon your return; it is often most convenient to arrange this transport upon your return to Talkeetna (see the Expedition Travel and Logistics sheet). Many climbers feel that extra time spent in Talkeetna after their expedition helps them transition from the quiet of the mountains back to their busy lives by attending to practical things, like sorting gear, dealing with travel details, and taking a shower. A night of sleep before traveling is recommended. Some climbers plan extra time at the end of their expeditions for sightseeing while they are in Alaska. In addition to attracting climbers from all over the world,

Talkeetna boasts world-class salmon fishing and other activities.

WEST RIB ITINERARY

Weather and snow conditions will ultimately determine our progress on the mountain. This itinerary is a rough timeline and outlines a possible schedule. Our style on the mountain is flexible and will fluctuate on a 24-hour clock depending on conditions. With lucky weather, most expeditions return a day or two early. However, delays at the start with unflyable weather and storms at high camp may result in our running out of time. It is possible for us to extend the length of the expedition for those who have a flexible schedule and desire to tough it out for a few extra days at high camp. There is a cost associated with this to compensate the guides.

Day 1

1:00 p.m., meet at AMS: Orientation and gear check, with time to rent or purchase gear from the AMS store and to select and pack mountain lunches. You are free at 6:00 p.m. to enjoy the evening in Talkeetna.

Day 2

8:00 a.m., meet at AMS: team NPS registration and orientation., Denali skills review, lunch at AMS; final packing, weighing, and loading gear for a 3:00 p.m. flight to 7,200 ft, Base Camp; distance: 60 miles, elevation gain: 6,850 ft.

Day 3

Base Camp to Ski Hill, 7,800 ft: Glacier travel and crevasse rescue drill, pack and single to 7,800 ft, Camp 1; distance: 5.5 miles, elevation gain: 600 ft.

Day 4

Carry to "Safe" Camp, 9,500 ft, distance: 6 miles, elevation gain: 1,700 ft.

Day 5

Move to "Safe" Camp, 9,500 ft, Camp 2, distance: 3 miles, elevation gain: 1,700 ft.

Day 6

Carry to Couloir Camp, 11,000 feet, distance: 3 miles, elevation gain: 1500 ft.

Day 7

Move to Couloir Camp, 11,000 feet, Camp 3, distance: 1.5 miles, elevation gain: 1,500 ft. Fix lines up the Chicken Couloir in the evening.

Day 8

Carry to 12,900 ft, distance: 1 mile, elevation gain: 1,900 ft.

Day 9

Move to the Rib, 13,900 ft, Camp 4, distance: 0.75 mile, elevation gain: 2,900 ft. Pick up cache, distance: .5 mile, elevation gain: 1,000 ft.

Day 10

Rest day / acclimatization / weather contingency day at 13,900 ft camp, Camp 4.

Day 11

Carry to the West Rib cut-off at 15,800 ft, distance: 1 mile, elevation gain: 1,900 ft.

Day 12

Move to Upper Ridge Camp, 16,300 ft, Camp 5, distance: 0.75 mile, elevation gain: 2,400 ft.

Days 13, 14, 15, 16, 17, 18, 19

Summit days, weather contingency days, 20,310 ft, distance: 2.5+ miles, elevation gain: 4,000 feet.

Day 20

Descend to 14,200 ft, distance: 1 mile.

Day 21

Descend to Base Camp, 7,200 ft, distance: 11.25 miles.

Day 22

Fly back to Talkeetna.